DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 16, 2018	**WEATHER:** Overcast, High ~65 degrees F

Personnel and Visitors Onsite:
Research vessel Cayuse – CDM Smith: Jason Silvertooth; AECOM: Mark Tauscher; Geosyntec: Joey Hickey; Gravity Marine: Mike Duffield, Ed Sloan

Research vessel Tieton – CDM Smith: Libby Miner; AECOM: Nicky Moody; Geosyntec: Adam Maguire; Gravity Marine: Rene Trudeau, Maggie McKeon

Planned Activity:

- Attend morning meeting at AECOM sample processing facility to discuss health and safety, lessons learned during sediment sampling, and refined approach for determining acceptable sediment samples under a variety of substrate conditions.
- Collect surface sediment samples at stratified random sample locations that were previously skipped due to access issues or poor recovery.

Activity Completed:
After the morning meeting at the AECOM sample processing facility, Gravity and AECOM/Geosyntec crews met at the Swan Island Dock at 10:00 AM and a tailgate safety meeting was led by AECOM. Topics discussed during the safety meeting included pinch points, sharps in sediment, a review of emergency procedures, and an overview of general boat safety (including a boat orientation) for new personnel to the project.

Jason Silvertooth performed oversight of surface sediment sampling at stratified random sample locations that had previously been skipped due to access issues or anticipated hard sediment from 10:00 to 17:30 on board the Cayuse. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 control point at the Fred Devine property. GPS coordinates were within 1.17 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from stratified random sample locations near RM 2.5 E and 5.1 W. Samples collected and a brief description of each sample are provided below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.

Libby Miner performed oversight of surface sediment sampling from 10:30 to 17:35 on board the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 control point at the Fred Devine property. GPS coordinates were within 1.3 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from four SMA locations. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.

Status of Schedule & Priority Work:

- Sampling will continue tomorrow with SMA, stratified random, and co-located core sampling locations.
- Sampling on some private property locations will continue to occur at locations with property access agreements.
- Sample locations in areas of known/encountered heavy sheen contamination will start to be sampled soon as the other remaining locations are completed.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):
At location SG-B137, moderate sheen and petroleum odor were encountered in the sand layer at 4-24 cm depth in grab #7. After collecting the sample, the field crew containerized the sediment in a large container on board the vessel, and rinsed sediment on the power grab and sampling equipment into the container. No sheen was observed on deck, and no sheen was observed when retrieving the sample or when returning the clean power grab to the river. The container was removed from the boat at the end of the day and transported to the AECOM sample processing facility to be drummed and disposed of as IDW.

At location SG-B153, three grab attempts were made within the 25 foot radius that all encountered large cobble-sized rocks and no sediment, resulting in a classification as 'Bin 4' in the revised sampling approach. Per the new guidance, Gravity crew used a weighted lead line to probe the area around the sample. First the area within 25 ft of the sample

location was probed and then the area within 50 ft. In both cases, the led line consistently bounced along the bottom hitting rocks and no soft sediment. Accordingly, per the revised guidance, the crew moved to the Alternative 1 location. The first grab at Alternative 1 resulted in sediment washout due to sticks and debris. At this point the sampling crew on the Cayuse decided to stop for the day and return to this location in the morning to avoid staying on the river past the scheduled 6PM meeting time at the dock, and to ensure adequate time to manage containerized sediment.

On board the Tieton, several sampling locations were found to be inaccessible. S164 was located within a large pier structure with creosote-coated pilings. No samples were able to be collected and AECOM/Geosyntec plans to file an anomaly report. S240 was found to be inaccessible due to an illegally-parked houseboat.

This was the first field day with new guidance on sampling methodology. At several locations (S165 and S196), sediment seemed to fall into 'Bin 1' as it was very soft and all samples collected were greater than 20 cm, but debris caused several rejects (which may have classified them as 'Bin 2'). A total of 6 attempts were not made; collection attempts ceased after three >20cm samples were obtained; and all attempts occurred within the 25-ft radius.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Cayuse, sediment samples were collected at the following stratified random sampling locations:

- PDI-SG-B028 – within 25 ft radius, silt with trace sand
- PDI-SG-B137– within 50 ft radius, sandy silt, sheen and petroleum odor in one grab

On the Tieton, sediment samples were collected at the following SMA locations:

- PDI-SG-S165 – within 25 ft radius, dark grey sandy silt
- PDI-SG-S166 – within 25 ft radius, dark grey sandy silt
- PDI-SG-S190 – within 25 ft radius, gray sandy silt
- PDI-SG-S196 – within 25 ft radius, sandy silt with green clay chunk

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

Photographs of work were taken throughout the day on board the Cayuse and Tieton were provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP.
- At SG-B137 significant sheen was observed in the sample and there was a moderate to strong petroleum odor. This sample was containerized on the boat and sediment on all equipment that contacted the sample was rinsed into the container. The container was transported to the AECOM sample processing facility at the end of the day to be placed into a 55-gallon drum for subsequent characterization and disposal.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
None.

Signature: Jason Silvertooth, Libby Miner **DATE** May 16, 2018